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NOTICE OF ALLOWANCE AND FEE(S) DUE

24247

7590

09/10/2002

TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110 EXAMINER
CHASE, SHELLY A

CHASE, SHELLI A

ART UNIT CLASS-SUBCLASS

2133

714-724000

DATE MAILED: 09/10/2002

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,010	08/27/2001	Roland Ochoa	3011.3US(92-0657.4)	3702

TITLE OF INVENTION: SEMICONDUCTOR INTEGRATED CIRCUIT HAVING COMPRESSION CIRCUITRY FOR COMPRESSING TEST DATA, AND THE TEST SYSTEM AND METHOD FOR UTILIZING THE SEMICONDUCTOR INTEGRATED CIRCUIT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1280	\$300	\$1580	12/10/2002

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>, THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

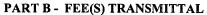
 Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.







Complete and send this form, together with applicable fee(s), to: Mail Box ISSUE FEE

Commissioner for Patents Washington, D.C. 20231

(703)746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block I) Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. 24247 09/10/2002 TRASK BRITT P.O. BOX 2550 Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below. SALT LAKE CITY, UT 84110 (Depositor's name (Signature) (Date) APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 09/940,010 08/27/2001 Roland Ochoa 3011.3US(92-0657.4) TITLE OF INVENTION: SEMICONDUCTOR INTEGRATED CIRCUIT HAVING COMPRESSION CIRCUITRY FOR COMPRESSING TEST DATA, AND THE TEST SYSTEM AND METHOD FOR UTILIZING THE SEMICONDUCTOR INTEGRATED CIRCUIT APPLN. TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1280 \$300 \$1580 12/10/2002 **EXAMINER** ART UNIT CLASS-SUBCLASS CHASE, SHELLY A 2133 714-724000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. single firm (having as a member a registered attorney or agent) and the names of up to 2 The Address indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer registered patent attorneys or agents. If no name is listed, no name will be printed. Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent) ☐ individual ☐ corporation or other private group entity ☐ government 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): ☐ A check in the amount of the fee(s) is enclosed. ☐ Issue Fee Payment by credit card. Form PTO-2038 is attached. □ Publication Fee ☐ The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number ______(enclose an extra copy of this form). ☐ Advance Order - # of Copies Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature) (Date) NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.



United States Patent and Trademark Office



APPLICATION N	O. F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,010		08/27/2001	Roland Ochoa	3011.3US(92-0657.4)	3702
24247	7590	09/10/2002		EXAMINER	
TRASK BRITT P.O. BOX 2550			CHASE, SHELLY A		
	SALT LAKE CITY, UT 84110		ART UNIT	PAPER NUMBER	
				2133	
			DATE MAILED: 09/10/2002		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 0 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 0 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)



United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.usplo.gov

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09/940,010		08/27/2001	Roland Ochoa	3011.3US(92-0657.4)	3702
24247	7590	09/10/2002		EXAMINER	
TRASK BRITT P.O. BOX 2550			CHASE, SHELLY A		
SALT LAKE		84110		ART UNIT	PAPER NUMBER
UNITED STATES				2133	
			DATE MAILED: 09/10/2002		

Notice of Possible Fee Increase on October 1, 2002

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2002, then the amount due may be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there may be an increase in fees effective on October 1, 2002. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Notice of Proposed Rulemaking, 67 Fed. Reg. 30634, 30636 (May 7, 2002). Although a change to the amount of the publication fee is not currently proposed for October 2002, if the issue fee or publication fee is to be paid on or after October 1, 2002, applicant should check the USPTO web site for the current fees before submitting the payment. The USPTO Internet address for the fee schedule is: http://www.uspto.gov/main/howtofees.htm.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of any fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after October 1, 2002 (or mailed with a certificate of mailing on or after October 1, 2002), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

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, ,	Application No.	Applicant(s)	
· Netice of Allemahility	09/940,010	OCHOA ET AL.	
Notice of Allowability	Examiner	Art Unit	
	Shelly A Chase	2133	
The MAILING DATE of this communication ap All claims being allowable, PROSECUTION ON THE MERITS herewith (or previously mailed), a Notice of Allowance (PTOL-8 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT of the Office or upon petition by the applicant. See 37 CFR 1.3	opears on the cover sheet with the IS (OR REMAINS) CLOSED in this 35) or other appropriate communicat RIGHTS. This application is subject	application. If not included tion will be mailed in due cours	se. THIS
 This communication is responsive to application filed 08 The allowed claim(s) is/are 1-14. The drawings filed on 27 August 2001 are accepted by Acknowledgment is made of a claim for foreign priority of a) All b) Some* c) None of the: Certified copies of the priority documents have Certified copies of the priority documents have Copies of the certified copies of the priority 	the Examiner. under 35 U.S.C. § 119(a)-(d) or (f). ave been received. ave been received in Application No.		from the
International Bureau (PCT Rule 17.2(a)). * Certified copies not received: 5. Acknowledgment is made of a claim for domestic priority (a) The translation of the foreign language provisiona 6. Acknowledgment is made of a claim for domestic priority	v under 35 U.S.C. § 119(e) (to a proval application has been received.	visional application).	
Applicant has THREE MONTHS FROM THE "MAILING DATE" below. Failure to timely comply will result in ABANDONMENT 7. A SUBSTITUTE OATH OR DECLARATION must be su	of this application. THIS THREE-M bmitted. Note the attached EXAMIN	ONTH PERIOD IS NOT EXTI	ENDABLE
INFORMAL PATENT APPLICATION (PTO-152) which gives re 8. CORRECTED DRAWINGS must be submitted. (a) including changes required by the Notice of Draftsp 1) hereto or 2) to Paper No (b) including changes required by the proposed drawin (c) including changes required by the attached Examin Identifying indicia such as the application number (see 37 CFF of each sheet. The drawings should be filed as a separate paper.	g correction filed, which has er's Amendment / Comment or in the	FO-948) attached been approved by the Exami e Office action of Paper No wings in the top margin (not the	·
9. ☐ DEPOSIT OF and/or INFORMATION about the department attached Examiner's comment regarding REQUIREMENT FOR	posit of BIOLOGICAL MATERIAL	L must be submitted. Note t	ihe
Attachment(s)			
1⊠ Notice of References Cited (PTO-892) 3□ Notice of Draftperson's Patent Drawing Review (PTO-948) 5⊠ Information Disclosure Statements (PTO-1449), Paper No. 7□ Examiner's Comment Regarding Requirement for Deposit of Biological Material	4⊠ Interview Sum 2. 6⊠ Examiner's Ar 8⊠ Examiner's St 9□ Other SUPER	mal Patent Application (PTO- imary (PTO-413), Paper No.3 nendment/Comment atement of Reasons for Allowater ALBERT DECADY INISORY PATENT EXAMINER CHNOLOGY CENTER 2100	

U.S. Patent and Trademark Office PTO-37 (Rev. 04-01)

Art Unit: 2133

EXAMINER'S AMENDMENT

- 1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
- 2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Bradley B. Jensen, Reg. No. 46,801 on September 6th 2002.
- 3. The application has been amended as follows:
 - i) claim 3, line 1, replaced "set of testing circuitry" with --- interface circuit ---,
- ii) claim 3, line 2 replaced "sets of testing circuitry" recited with --- interface circuits ---.
 - 4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelly A Chase whose telephone number is 703-308-7246. The examiner can normally be reached on Mon-Thur from 8:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 703-305-9595. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

September 6, 2002

Art Unit: 2133

DETAILED ACTION

1. Claims 1 to 14 are presented for examination.

Priority

2. Applicant's claim for continuation of an earlier filed application is acknowledged.

Information Disclosure Statement

3. The references listed in the information disclosure statement submitted on 8-27-2001 have been considered by examiner (see attached PTO-1449).

Allowable Subject Matter

- 4. Claims 1 to 14 are allowed.
- 5. The following is an examiner's statement of reasons for allowance: the prior arts of record taken alone or in combination discloses various methods of testing a semiconductor integrated circuit utilizing a testing device and an interface circuit; however the prior art of record fail to teach the novel elements of the instant invention.

Claims 1 and 2:

The prior art of record fail to teach or fairly suggests a load board interface for electrically connecting a semiconductor integrated circuit to one test station using a plurality of interface nodes, a plurality of input/output nodes and a plurality of test nodes.

Page 3

Claims 3 to 5 are directly or indirectly dependent on claim 2 thus, these claims are allowable over the prior art made of record.

Claim 6:

The prior art of record fail to teach or fairly suggest a test system comprising a plurality of semiconductor integrated circuits, one test station and one load board interface for electrically connecting each semiconductor integrated circuit and the test station. The load board interface includes a plurality of interface nodes and a set of test nodes and a switch.

Claim 7:

The prior art of record fail to teach or fairly suggest a method of testing a plurality of semiconductor integrated circuits electrically connected to a test station wherein a test is performed in a first test mode to check for faulty semiconductor integrated circuits and if a fault is detected a second test mode is initiated. Claims 8 to 14 are directly or indirectly dependent on claim 7 thus, these claims are allowable over the prior arts made of record.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

¹ Art Unit: 2133

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rotker et al. (USP <u>5444717</u>), Rotker teaches a method for testing an integrated circuit having a plurality of pins detecting error patterns and correcting the detected error patterns.

8. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 746-7238, (for After Final communications)

(703) 746-7239, (for Official or Formal communications)

Or:

(703) 746-7240, (for Non-Official or Informal or "DRAFT" communications)

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA.,

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelly A Chase whose telephone number is 703-308-7246. The examiner can normally be reached on Mon-Thur from 8:00 am to 6:00 pm.

¹ Art Unit: 2133

Page 5

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 703-305-9595. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

Shelly A Chase

September 5, 2002